

Appendix B

In-Process General Plan
Amendment Project VMT and
GHG Emission Forecast

SDC8 Detailed Report

Table of Contents

- 1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
- 2. Emissions Summary
 - 2.1. Construction Emissions Compared Against Thresholds
 - 2.2. Construction Emissions by Year, Unmitigated
 - 2.4. Operations Emissions Compared Against Thresholds
 - 2.5. Operations Emissions by Sector, Unmitigated
- 3. Construction Emissions Details
 - 3.1. Site Preparation (2025) - Unmitigated
 - 3.3. Grading (2025) - Unmitigated
 - 3.5. Grading (2026) - Unmitigated
 - 3.7. Building Construction (2026) - Unmitigated

3.9. Building Construction (2027) - Unmitigated

3.11. Building Construction (2028) - Unmitigated

3.13. Building Construction (2029) - Unmitigated

3.15. Building Construction (2030) - Unmitigated

3.17. Building Construction (2031) - Unmitigated

3.19. Building Construction (2032) - Unmitigated

3.21. Building Construction (2033) - Unmitigated

3.23. Paving (2033) - Unmitigated

3.25. Paving (2034) - Unmitigated

3.27. Architectural Coating (2034) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	SDC8
Construction Start Date	1/1/2025
Operational Year	2035
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	36.4
Location	32.877137138603686, -116.70264008732502
County	San Diego
City	Unincorporated
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6103
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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Single Family Housing	2,743	Dwelling Unit	891	5,348,850	32,128,367	—	7,653	—
Condo/Townhouse	117	Dwelling Unit	7.31	124,020	0.00	—	326	—
Mobile Home Park	104	Dwelling Unit	13.1	135,200	0.00	—	290	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	CO2e
Daily, Summer (Max)	—
Unmit.	21,370
Daily, Winter (Max)	—
Unmit.	20,735
Average Daily (Max)	—
Unmit.	14,630
Annual (Max)	—
Unmit.	2,422

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	CO2e
Daily - Summer (Max)	—
2025	6,814
2026	21,370

2027	21,002
2028	20,612
2029	20,201
2030	19,797
2031	19,351
2032	18,863
2033	18,525
2034	2,020
Daily - Winter (Max)	—
2025	6,803
2026	20,735
2027	20,384
2028	20,002
2029	19,607
2030	19,219
2031	18,789
2032	18,401
2033	17,982
2034	1,913
Average Daily	—
2025	4,567
2026	14,065
2027	14,630
2028	14,399
2029	14,075
2030	13,796
2031	13,484

2032	13,243
2033	11,620
2034	1,283
Annual	—
2025	756
2026	2,329
2027	2,422
2028	2,384
2029	2,330
2030	2,284
2031	2,232
2032	2,193
2033	1,924
2034	212

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	CO ₂ e
Daily, Summer (Max)	—
Unmit.	205,825
Daily, Winter (Max)	—
Unmit.	202,885
Average Daily (Max)	—
Unmit.	110,231
Annual (Max)	—
Unmit.	18,250

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	CO ₂ e
Daily, Summer (Max)	—
Mobile	53,275
Area	120,751
Energy	27,091
Water	940
Waste	3,729
Refrig.	40.2
Total	205,825
Daily, Winter (Max)	—
Mobile	50,786
Area	120,300
Energy	27,091
Water	940
Waste	3,729
Refrig.	40.2
Total	202,885
Average Daily	—
Mobile	51,183
Area	27,249
Energy	27,091
Water	940
Waste	3,729
Refrig.	40.2
Total	110,231

Annual	—
Mobile	8,474
Area	4,511
Energy	4,485
Water	156
Waste	617
Refrig.	6.65
Total	18,250

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	5,314
Dust From Material Movement	—
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	5,314
Dust From Material Movement	—
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,150
Dust From Material Movement	—
Onsite truck	0.00

Annual	—
Off-Road Equipment	190
Dust From Material Movement	—
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	169
Vendor	0.00
Hauling	0.00
Daily, Winter (Max)	—
Worker	159
Vendor	0.00
Hauling	0.00
Average Daily	—
Worker	34.7
Vendor	0.00
Hauling	0.00
Annual	—
Worker	5.75
Vendor	0.00
Hauling	0.00

3.3. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—

Off-Road Equipment	6,622
Dust From Material Movement	—
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	6,622
Dust From Material Movement	—
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	3,291
Dust From Material Movement	—
Onsite truck	0.00
Annual	—
Off-Road Equipment	545
Dust From Material Movement	—
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	193
Vendor	0.00
Hauling	0.00
Daily, Winter (Max)	—
Worker	182
Vendor	0.00
Hauling	0.00
Average Daily	—
Worker	91.2
Vendor	0.00

Hauling	0.00
Annual	—
Worker	15.1
Vendor	0.00
Hauling	0.00

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO ₂ e
Onsite	—
Daily, Summer (Max)	—
Daily, Winter (Max)	—
Off-Road Equipment	6,621
Dust From Material Movement	—
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	389
Dust From Material Movement	—
Onsite truck	0.00
Annual	—
Off-Road Equipment	64.4
Dust From Material Movement	—
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Daily, Winter (Max)	—
Worker	178

Vendor	0.00
Hauling	0.00
Average Daily	—
Worker	10.6
Vendor	0.00
Hauling	0.00
Annual	—
Worker	1.75
Vendor	0.00
Hauling	0.00

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,577
Onsite truck	0.00
Annual	—
Off-Road Equipment	261
Onsite truck	0.00

Offsite	—
Daily, Summer (Max)	—
Worker	10,820
Vendor	8,144
Hauling	0.00
Daily, Winter (Max)	—
Worker	10,199
Vendor	8,130
Hauling	0.00
Average Daily	—
Worker	6,755
Vendor	5,333
Hauling	0.00
Annual	—
Worker	1,118
Vendor	883
Hauling	0.00

3.9. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	2,405

Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,718
Onsite truck	0.00
Annual	—
Off-Road Equipment	284
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	10,636
Vendor	7,961
Hauling	0.00
Daily, Winter (Max)	—
Worker	10,030
Vendor	7,949
Hauling	0.00
Average Daily	—
Worker	7,231
Vendor	5,681
Hauling	0.00
Annual	—
Worker	1,197
Vendor	941
Hauling	0.00

3.11. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,406
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	2,406
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,723
Onsite truck	0.00
Annual	—
Off-Road Equipment	285
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	10,439
Vendor	7,767
Hauling	0.00
Daily, Winter (Max)	—
Worker	9,838
Vendor	7,758
Hauling	0.00
Average Daily	—
Worker	7,118
Vendor	5,559
Hauling	0.00

Annual	—
Worker	1,178
Vendor	920
Hauling	0.00

3.13. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,718
Onsite truck	0.00
Annual	—
Off-Road Equipment	284
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	10,258
Vendor	7,537
Hauling	0.00
Daily, Winter (Max)	—

Worker	9,672
Vendor	7,530
Hauling	0.00
Average Daily	—
Worker	6,977
Vendor	5,380
Hauling	0.00
Annual	—
Worker	1,155
Vendor	891
Hauling	0.00

3.15. Building Construction (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,718
Onsite truck	0.00
Annual	—
Off-Road Equipment	284

Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	10,087
Vendor	7,304
Hauling	0.00
Daily, Winter (Max)	—
Worker	9,513
Vendor	7,301
Hauling	0.00
Average Daily	—
Worker	6,862
Vendor	5,216
Hauling	0.00
Annual	—
Worker	1,136
Vendor	864
Hauling	0.00

3.17. Building Construction (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Daily, Winter (Max)	—

Off-Road Equipment	2,405
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,718
Onsite truck	0.00
Annual	—
Off-Road Equipment	284
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	9,898
Vendor	7,048
Hauling	0.00
Daily, Winter (Max)	—
Worker	9,337
Vendor	7,046
Hauling	0.00
Average Daily	—
Worker	6,734
Vendor	5,032
Hauling	0.00
Annual	—
Worker	1,115
Vendor	833
Hauling	0.00

3.19. Building Construction (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO ₂ e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,723
Onsite truck	0.00
Annual	—
Off-Road Equipment	285
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	9,662
Vendor	6,797
Hauling	0.00
Daily, Winter (Max)	—
Worker	9,201
Vendor	6,795
Hauling	0.00
Average Daily	—
Worker	6,654
Vendor	4,867
Hauling	0.00

Annual	—
Worker	1,102
Vendor	806
Hauling	0.00

3.21. Building Construction (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,530
Onsite truck	0.00
Annual	—
Off-Road Equipment	253
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	9,552
Vendor	6,568
Hauling	0.00
Daily, Winter (Max)	—

Worker	9,010
Vendor	6,567
Hauling	0.00
Average Daily	—
Worker	5,786
Vendor	4,176
Hauling	0.00
Annual	—
Worker	958
Vendor	691
Hauling	0.00

3.23. Paving (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Daily, Winter (Max)	—
Off-Road Equipment	1,516
Paving	—
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	119
Paving	—
Onsite truck	0.00
Annual	—
Off-Road Equipment	19.6

Paving	—
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Daily, Winter (Max)	—
Worker	118
Vendor	0.00
Hauling	0.00
Average Daily	—
Worker	9.32
Vendor	0.00
Hauling	0.00
Annual	—
Worker	1.54
Vendor	0.00
Hauling	0.00

3.25. Paving (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	1,516
Paving	—
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	1,516

Paving	—
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	484
Paving	—
Onsite truck	0.00
Annual	—
Off-Road Equipment	80.1
Paving	—
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	123
Vendor	0.00
Hauling	0.00
Daily, Winter (Max)	—
Worker	116
Vendor	0.00
Hauling	0.00
Average Daily	—
Worker	37.5
Vendor	0.00
Hauling	0.00
Annual	—
Worker	6.21
Vendor	0.00
Hauling	0.00

3.27. Architectural Coating (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	134
Architectural Coatings	—
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	134
Architectural Coatings	—
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	52.9
Architectural Coatings	—
Onsite truck	0.00
Annual	—
Off-Road Equipment	8.75
Architectural Coatings	—
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	1,886
Vendor	0.00
Hauling	0.00
Daily, Winter (Max)	—
Worker	1,779

Vendor	0.00
Hauling	0.00
Average Daily	—
Worker	709
Vendor	0.00
Hauling	0.00
Annual	—
Worker	117
Vendor	0.00
Hauling	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Single Family Housing	369
Condo/Townhouse	10.6
Mobile Home Park	10.7
Total	390
Daily, Winter (Max)	—

Single Family Housing	369
Condo/Townhouse	10.6
Mobile Home Park	10.7
Total	390
Annual	—
Single Family Housing	61.0
Condo/Townhouse	1.75
Mobile Home Park	1.77
Total	64.6

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Single Family Housing	25,139
Condo/Townhouse	773
Mobile Home Park	789
Total	26,701
Daily, Winter (Max)	—
Single Family Housing	25,139
Condo/Townhouse	773
Mobile Home Park	789
Total	26,701
Annual	—
Single Family Housing	4,162
Condo/Townhouse	128
Mobile Home Park	131

Total	4,421
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4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	CO ₂ e
Daily, Summer (Max)	—
Hearths	120,300
Consumer Products	—
Architectural Coatings	—
Landscape Equipment	451
Total	120,751
Daily, Winter (Max)	—
Hearths	120,300
Consumer Products	—
Architectural Coatings	—
Total	120,300
Annual	—
Hearths	4,474
Consumer Products	—
Architectural Coatings	—
Landscape Equipment	36.8
Total	4,511

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Single Family Housing	875
Condo/Townhouse	34.4
Mobile Home Park	30.6
Total	940
Daily, Winter (Max)	—
Single Family Housing	875
Condo/Townhouse	34.4
Mobile Home Park	30.6
Total	940
Annual	—
Single Family Housing	145
Condo/Townhouse	5.70
Mobile Home Park	5.06
Total	156

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Single Family Housing	3,421
Condo/Townhouse	163

Mobile Home Park	145
Total	3,729
Daily, Winter (Max)	—
Single Family Housing	3,421
Condo/Townhouse	163
Mobile Home Park	145
Total	3,729
Annual	—
Single Family Housing	566
Condo/Townhouse	27.0
Mobile Home Park	24.0
Total	617

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO ₂ e
Daily, Summer (Max)	—
Single Family Housing	38.3
Condo/Townhouse	0.89
Mobile Home Park	0.97
Total	40.2
Daily, Winter (Max)	—
Single Family Housing	38.3
Condo/Townhouse	0.89
Mobile Home Park	0.97

Total	40.2
Annual	—
Single Family Housing	6.34
Condo/Townhouse	0.15
Mobile Home Park	0.16
Total	6.65

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	CO2e
Daily, Summer (Max)	—
Total	—
Daily, Winter (Max)	—
Total	—
Annual	—
Total	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	CO2e
Daily, Summer (Max)	—
Total	—
Daily, Winter (Max)	—

Total	—
Annual	—
Total	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	CO2e
Daily, Summer (Max)	—
Total	—
Daily, Winter (Max)	—
Total	—
Annual	—
Total	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	CO2e
Daily, Summer (Max)	—
Total	—
Daily, Winter (Max)	—
Total	—
Annual	—
Total	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Total	—
Daily, Winter (Max)	—
Total	—
Annual	—
Total	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	CO2e
Daily, Summer (Max)	—
Avoided	—
Subtotal	—
Sequestered	—
Subtotal	—
Removed	—
Subtotal	—
—	—
Daily, Winter (Max)	—
Avoided	—
Subtotal	—
Sequestered	—
Subtotal	—
Removed	—

Subtotal	—
—	—
Annual	—
Avoided	—
Subtotal	—
Sequestered	—
Subtotal	—
Removed	—
Subtotal	—
—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2025	4/21/2025	5.00	79.0	—
Grading	Grading	4/22/2025	1/30/2026	5.00	204	—
Building Construction	Building Construction	1/31/2026	11/21/2033	5.00	2,036	—
Paving	Paving	11/22/2033	6/12/2034	5.00	145	—
Architectural Coating	Architectural Coating	6/13/2034	12/29/2034	5.00	144	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40

Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT

Grading	—	—	—	—
Grading	Worker	20.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	1,147	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	317	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	229	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	11,356,342	3,785,447	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	119	0.00	—
Grading	—	—	612	0.00	—
Paving	0.00	0.00	0.00	0.00	30.2

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	30.2	0%
Condo/Townhouse	—	0%
Mobile Home Park	—	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	589	0.03	< 0.005
2026	0.00	589	0.03	< 0.005
2027	0.00	589	0.03	< 0.005

2028	0.00	589	0.03	< 0.005
2029	0.00	589	0.03	< 0.005
2030	0.00	589	0.03	< 0.005
2031	0.00	589	0.03	< 0.005
2032	0.00	589	0.03	< 0.005
2033	0.00	589	0.03	< 0.005
2034	0.00	589	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	0.00	0.00	0.00	0.00	76,487	76,487	76,487	27,917,885

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	960
Gas Fireplaces	1509
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	274
Conventional Wood Stoves	0
Catalytic Wood Stoves	137

Non-Catalytic Wood Stoves	137
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	41
Gas Fireplaces	64
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	12
Conventional Wood Stoves	0
Catalytic Wood Stoves	6
Non-Catalytic Wood Stoves	6
Pellet Wood Stoves	0
Mobile Home Park	—
Wood Fireplaces	36
Gas Fireplaces	57
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	5
Non-Catalytic Wood Stoves	5
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
11356341.75	3,785,447	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	16,845,524	7.99	0.0000	0.0000	78,221,948
Condo/Townhouse	483,135	7.99	0.0000	0.0000	2,406,074
Mobile Home Park	488,882	7.99	0.0000	0.0000	2,454,929

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	96,370,025	586,827,480
Condo/Townhouse	4,110,570	0.00
Mobile Home Park	3,653,840	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	1,814	—

Condo/Townhouse	86.4	—
Mobile Home Park	76.9	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Mobile Home Park	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Mobile Home Park	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	23.3	annual days of extreme heat
Extreme Precipitation	6.25	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	30.9	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	N/A	N/A	N/A	N/A
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The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—

AQ-Ozone	78.2
AQ-PM	4.79
AQ-DPM	0.47
Drinking Water	62.6
Lead Risk Housing	48.8
Pesticides	0.00
Toxic Releases	10.9
Traffic	1.46
Effect Indicators	—
CleanUp Sites	71.6
Groundwater	22.1
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	12.5
Solid Waste	70.4
Sensitive Population	—
Asthma	17.9
Cardio-vascular	11.4
Low Birth Weights	67.2
Socioeconomic Factor Indicators	—
Education	36.9
Housing	0.08
Linguistic	0.00
Poverty	18.2
Unemployment	60.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	63.31322982
Employed	14.53868857
Median HI	78.01873476
Education	—
Bachelor's or higher	52.99627871
High school enrollment	100
Preschool enrollment	73.96381368
Transportation	—
Auto Access	98.98626973
Active commuting	8.943924034
Social	—
2-parent households	44.29616322
Voting	96.58668035
Neighborhood	—
Alcohol availability	78.86564866
Park access	59.74592583
Retail density	2.55357372
Supermarket access	2.399589375
Tree canopy	65.07121776
Housing	—
Homeownership	88.6179905
Housing habitability	96.50968818
Low-inc homeowner severe housing cost burden	92.04414218
Low-inc renter severe housing cost burden	99.08892596
Uncrowded housing	56.30694213

Health Outcomes	—
Insured adults	60.27203901
Arthritis	0.0
Asthma ER Admissions	42.2
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	34.5
Cognitively Disabled	21.0
Physically Disabled	42.3
Heart Attack ER Admissions	40.0
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	82.2
SLR Inundation Area	0.0

Children	47.4
Elderly	36.8
English Speaking	98.1
Foreign-born	2.7
Outdoor Workers	68.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	95.6
Traffic Density	0.7
Traffic Access	23.0
Other Indices	—
Hardship	35.2
Other Decision Support	—
2016 Voting	96.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	13.0
Healthy Places Index Score for Project Location (b)	64.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	Only CO2e intensity factor is available from the project, hence CH4 and N2O EF are zeroed out.
Construction: Construction Phases	No demolition required

SDC8 Detailed Report

Table of Contents

- 1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
- 2. Emissions Summary
 - 2.1. Construction Emissions Compared Against Thresholds
 - 2.2. Construction Emissions by Year, Unmitigated
 - 2.4. Operations Emissions Compared Against Thresholds
 - 2.5. Operations Emissions by Sector, Unmitigated
- 3. Construction Emissions Details
 - 3.1. Site Preparation (2025) - Unmitigated
 - 3.3. Grading (2025) - Unmitigated
 - 3.5. Grading (2026) - Unmitigated
 - 3.7. Building Construction (2026) - Unmitigated

3.9. Building Construction (2027) - Unmitigated

3.11. Building Construction (2028) - Unmitigated

3.13. Building Construction (2029) - Unmitigated

3.15. Building Construction (2030) - Unmitigated

3.17. Building Construction (2031) - Unmitigated

3.19. Building Construction (2032) - Unmitigated

3.21. Building Construction (2033) - Unmitigated

3.23. Paving (2033) - Unmitigated

3.25. Paving (2034) - Unmitigated

3.27. Architectural Coating (2034) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	SDC8
Construction Start Date	1/1/2025
Operational Year	2050
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	36.4
Location	32.877137138603686, -116.70264008732502
County	San Diego
City	Unincorporated
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6103
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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Single Family Housing	2,743	Dwelling Unit	891	5,348,850	32,128,367	—	7,653	—
Condo/Townhouse	117	Dwelling Unit	7.31	124,020	0.00	—	326	—
Mobile Home Park	104	Dwelling Unit	13.1	135,200	0.00	—	290	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	CO2e
Daily, Summer (Max)	—
Unmit.	21,370
Daily, Winter (Max)	—
Unmit.	20,735
Average Daily (Max)	—
Unmit.	14,630
Annual (Max)	—
Unmit.	2,422

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	CO2e
Daily - Summer (Max)	—
2025	6,814
2026	21,370

2027	21,002
2028	20,612
2029	20,201
2030	19,797
2031	19,351
2032	18,863
2033	18,525
2034	2,020
Daily - Winter (Max)	—
2025	6,803
2026	20,735
2027	20,384
2028	20,002
2029	19,607
2030	19,219
2031	18,789
2032	18,401
2033	17,982
2034	1,913
Average Daily	—
2025	4,567
2026	14,065
2027	14,630
2028	14,399
2029	14,075
2030	13,796
2031	13,484

2032	13,243
2033	11,620
2034	1,283
Annual	—
2025	756
2026	2,329
2027	2,422
2028	2,384
2029	2,330
2030	2,284
2031	2,232
2032	2,193
2033	1,924
2034	212

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	CO ₂ e
Daily, Summer (Max)	—
Unmit.	199,430
Daily, Winter (Max)	—
Unmit.	196,749
Average Daily (Max)	—
Unmit.	104,042
Annual (Max)	—
Unmit.	17,225

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	CO ₂ e
Daily, Summer (Max)	—
Mobile	46,880
Area	120,751
Energy	27,091
Water	940
Waste	3,729
Refrig.	40.2
Total	199,430
Daily, Winter (Max)	—
Mobile	44,651
Area	120,300
Energy	27,091
Water	940
Waste	3,729
Refrig.	40.2
Total	196,749
Average Daily	—
Mobile	44,994
Area	27,249
Energy	27,091
Water	940
Waste	3,729
Refrig.	40.2
Total	104,042

Annual	—
Mobile	7,449
Area	4,511
Energy	4,485
Water	156
Waste	617
Refrig.	6.65
Total	17,225

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	5,314
Dust From Material Movement	—
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	5,314
Dust From Material Movement	—
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,150
Dust From Material Movement	—
Onsite truck	0.00

Annual	—
Off-Road Equipment	190
Dust From Material Movement	—
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	169
Vendor	0.00
Hauling	0.00
Daily, Winter (Max)	—
Worker	159
Vendor	0.00
Hauling	0.00
Average Daily	—
Worker	34.7
Vendor	0.00
Hauling	0.00
Annual	—
Worker	5.75
Vendor	0.00
Hauling	0.00

3.3. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—

Off-Road Equipment	6,622
Dust From Material Movement	—
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	6,622
Dust From Material Movement	—
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	3,291
Dust From Material Movement	—
Onsite truck	0.00
Annual	—
Off-Road Equipment	545
Dust From Material Movement	—
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	193
Vendor	0.00
Hauling	0.00
Daily, Winter (Max)	—
Worker	182
Vendor	0.00
Hauling	0.00
Average Daily	—
Worker	91.2
Vendor	0.00

Hauling	0.00
Annual	—
Worker	15.1
Vendor	0.00
Hauling	0.00

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Daily, Winter (Max)	—
Off-Road Equipment	6,621
Dust From Material Movement	—
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	389
Dust From Material Movement	—
Onsite truck	0.00
Annual	—
Off-Road Equipment	64.4
Dust From Material Movement	—
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Daily, Winter (Max)	—
Worker	178

Vendor	0.00
Hauling	0.00
Average Daily	—
Worker	10.6
Vendor	0.00
Hauling	0.00
Annual	—
Worker	1.75
Vendor	0.00
Hauling	0.00

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,577
Onsite truck	0.00
Annual	—
Off-Road Equipment	261
Onsite truck	0.00

Offsite	—
Daily, Summer (Max)	—
Worker	10,820
Vendor	8,144
Hauling	0.00
Daily, Winter (Max)	—
Worker	10,199
Vendor	8,130
Hauling	0.00
Average Daily	—
Worker	6,755
Vendor	5,333
Hauling	0.00
Annual	—
Worker	1,118
Vendor	883
Hauling	0.00

3.9. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	2,405

Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,718
Onsite truck	0.00
Annual	—
Off-Road Equipment	284
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	10,636
Vendor	7,961
Hauling	0.00
Daily, Winter (Max)	—
Worker	10,030
Vendor	7,949
Hauling	0.00
Average Daily	—
Worker	7,231
Vendor	5,681
Hauling	0.00
Annual	—
Worker	1,197
Vendor	941
Hauling	0.00

3.11. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,406
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	2,406
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,723
Onsite truck	0.00
Annual	—
Off-Road Equipment	285
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	10,439
Vendor	7,767
Hauling	0.00
Daily, Winter (Max)	—
Worker	9,838
Vendor	7,758
Hauling	0.00
Average Daily	—
Worker	7,118
Vendor	5,559
Hauling	0.00

Annual	—
Worker	1,178
Vendor	920
Hauling	0.00

3.13. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,718
Onsite truck	0.00
Annual	—
Off-Road Equipment	284
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	10,258
Vendor	7,537
Hauling	0.00
Daily, Winter (Max)	—

Worker	9,672
Vendor	7,530
Hauling	0.00
Average Daily	—
Worker	6,977
Vendor	5,380
Hauling	0.00
Annual	—
Worker	1,155
Vendor	891
Hauling	0.00

3.15. Building Construction (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,718
Onsite truck	0.00
Annual	—
Off-Road Equipment	284

Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	10,087
Vendor	7,304
Hauling	0.00
Daily, Winter (Max)	—
Worker	9,513
Vendor	7,301
Hauling	0.00
Average Daily	—
Worker	6,862
Vendor	5,216
Hauling	0.00
Annual	—
Worker	1,136
Vendor	864
Hauling	0.00

3.17. Building Construction (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Daily, Winter (Max)	—

Off-Road Equipment	2,405
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,718
Onsite truck	0.00
Annual	—
Off-Road Equipment	284
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	9,898
Vendor	7,048
Hauling	0.00
Daily, Winter (Max)	—
Worker	9,337
Vendor	7,046
Hauling	0.00
Average Daily	—
Worker	6,734
Vendor	5,032
Hauling	0.00
Annual	—
Worker	1,115
Vendor	833
Hauling	0.00

3.19. Building Construction (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO ₂ e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,723
Onsite truck	0.00
Annual	—
Off-Road Equipment	285
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	9,662
Vendor	6,797
Hauling	0.00
Daily, Winter (Max)	—
Worker	9,201
Vendor	6,795
Hauling	0.00
Average Daily	—
Worker	6,654
Vendor	4,867
Hauling	0.00

Annual	—
Worker	1,102
Vendor	806
Hauling	0.00

3.21. Building Construction (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	2,405
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	1,530
Onsite truck	0.00
Annual	—
Off-Road Equipment	253
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	9,552
Vendor	6,568
Hauling	0.00
Daily, Winter (Max)	—

Worker	9,010
Vendor	6,567
Hauling	0.00
Average Daily	—
Worker	5,786
Vendor	4,176
Hauling	0.00
Annual	—
Worker	958
Vendor	691
Hauling	0.00

3.23. Paving (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Daily, Winter (Max)	—
Off-Road Equipment	1,516
Paving	—
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	119
Paving	—
Onsite truck	0.00
Annual	—
Off-Road Equipment	19.6

Paving	—
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Daily, Winter (Max)	—
Worker	118
Vendor	0.00
Hauling	0.00
Average Daily	—
Worker	9.32
Vendor	0.00
Hauling	0.00
Annual	—
Worker	1.54
Vendor	0.00
Hauling	0.00

3.25. Paving (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO2e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	1,516
Paving	—
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	1,516

Paving	—
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	484
Paving	—
Onsite truck	0.00
Annual	—
Off-Road Equipment	80.1
Paving	—
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	123
Vendor	0.00
Hauling	0.00
Daily, Winter (Max)	—
Worker	116
Vendor	0.00
Hauling	0.00
Average Daily	—
Worker	37.5
Vendor	0.00
Hauling	0.00
Annual	—
Worker	6.21
Vendor	0.00
Hauling	0.00

3.27. Architectural Coating (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	CO ₂ e
Onsite	—
Daily, Summer (Max)	—
Off-Road Equipment	134
Architectural Coatings	—
Onsite truck	0.00
Daily, Winter (Max)	—
Off-Road Equipment	134
Architectural Coatings	—
Onsite truck	0.00
Average Daily	—
Off-Road Equipment	52.9
Architectural Coatings	—
Onsite truck	0.00
Annual	—
Off-Road Equipment	8.75
Architectural Coatings	—
Onsite truck	0.00
Offsite	—
Daily, Summer (Max)	—
Worker	1,886
Vendor	0.00
Hauling	0.00
Daily, Winter (Max)	—
Worker	1,779

Vendor	0.00
Hauling	0.00
Average Daily	—
Worker	709
Vendor	0.00
Hauling	0.00
Annual	—
Worker	117
Vendor	0.00
Hauling	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Single Family Housing	369
Condo/Townhouse	10.6
Mobile Home Park	10.7
Total	390
Daily, Winter (Max)	—

Single Family Housing	369
Condo/Townhouse	10.6
Mobile Home Park	10.7
Total	390
Annual	—
Single Family Housing	61.0
Condo/Townhouse	1.75
Mobile Home Park	1.77
Total	64.6

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Single Family Housing	25,139
Condo/Townhouse	773
Mobile Home Park	789
Total	26,701
Daily, Winter (Max)	—
Single Family Housing	25,139
Condo/Townhouse	773
Mobile Home Park	789
Total	26,701
Annual	—
Single Family Housing	4,162
Condo/Townhouse	128
Mobile Home Park	131

Total	4,421
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4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	CO ₂ e
Daily, Summer (Max)	—
Hearths	120,300
Consumer Products	—
Architectural Coatings	—
Landscape Equipment	451
Total	120,751
Daily, Winter (Max)	—
Hearths	120,300
Consumer Products	—
Architectural Coatings	—
Total	120,300
Annual	—
Hearths	4,474
Consumer Products	—
Architectural Coatings	—
Landscape Equipment	36.8
Total	4,511

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Single Family Housing	875
Condo/Townhouse	34.4
Mobile Home Park	30.6
Total	940
Daily, Winter (Max)	—
Single Family Housing	875
Condo/Townhouse	34.4
Mobile Home Park	30.6
Total	940
Annual	—
Single Family Housing	145
Condo/Townhouse	5.70
Mobile Home Park	5.06
Total	156

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Single Family Housing	3,421
Condo/Townhouse	163

Mobile Home Park	145
Total	3,729
Daily, Winter (Max)	—
Single Family Housing	3,421
Condo/Townhouse	163
Mobile Home Park	145
Total	3,729
Annual	—
Single Family Housing	566
Condo/Townhouse	27.0
Mobile Home Park	24.0
Total	617

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO ₂ e
Daily, Summer (Max)	—
Single Family Housing	38.3
Condo/Townhouse	0.89
Mobile Home Park	0.97
Total	40.2
Daily, Winter (Max)	—
Single Family Housing	38.3
Condo/Townhouse	0.89
Mobile Home Park	0.97

Total	40.2
Annual	—
Single Family Housing	6.34
Condo/Townhouse	0.15
Mobile Home Park	0.16
Total	6.65

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	CO2e
Daily, Summer (Max)	—
Total	—
Daily, Winter (Max)	—
Total	—
Annual	—
Total	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	CO2e
Daily, Summer (Max)	—
Total	—
Daily, Winter (Max)	—

Total	—
Annual	—
Total	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	CO2e
Daily, Summer (Max)	—
Total	—
Daily, Winter (Max)	—
Total	—
Annual	—
Total	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	CO2e
Daily, Summer (Max)	—
Total	—
Daily, Winter (Max)	—
Total	—
Annual	—
Total	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	CO2e
Daily, Summer (Max)	—
Total	—
Daily, Winter (Max)	—
Total	—
Annual	—
Total	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	CO2e
Daily, Summer (Max)	—
Avoided	—
Subtotal	—
Sequestered	—
Subtotal	—
Removed	—
Subtotal	—
—	—
Daily, Winter (Max)	—
Avoided	—
Subtotal	—
Sequestered	—
Subtotal	—
Removed	—

Subtotal	—
—	—
Annual	—
Avoided	—
Subtotal	—
Sequestered	—
Subtotal	—
Removed	—
Subtotal	—
—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2025	4/21/2025	5.00	79.0	—
Grading	Grading	4/22/2025	1/30/2026	5.00	204	—
Building Construction	Building Construction	1/31/2026	11/21/2033	5.00	2,036	—
Paving	Paving	11/22/2033	6/12/2034	5.00	145	—
Architectural Coating	Architectural Coating	6/13/2034	12/29/2034	5.00	144	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40

Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT

Grading	—	—	—	—
Grading	Worker	20.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	1,147	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	317	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	229	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	11,356,342	3,785,447	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	119	0.00	—
Grading	—	—	612	0.00	—
Paving	0.00	0.00	0.00	0.00	30.2

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	30.2	0%
Condo/Townhouse	—	0%
Mobile Home Park	—	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	589	0.03	< 0.005
2026	0.00	589	0.03	< 0.005
2027	0.00	589	0.03	< 0.005

2028	0.00	589	0.03	< 0.005
2029	0.00	589	0.03	< 0.005
2030	0.00	589	0.03	< 0.005
2031	0.00	589	0.03	< 0.005
2032	0.00	589	0.03	< 0.005
2033	0.00	589	0.03	< 0.005
2034	0.00	589	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VM/Weekday	VM/Saturday	VM/Sunday	VM/Year
Total all Land Uses	0.00	0.00	0.00	0.00	73,979	73,979	73,979	27,002,499

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	960
Gas Fireplaces	1509
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	274
Conventional Wood Stoves	0
Catalytic Wood Stoves	137

Non-Catalytic Wood Stoves	137
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	41
Gas Fireplaces	64
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	12
Conventional Wood Stoves	0
Catalytic Wood Stoves	6
Non-Catalytic Wood Stoves	6
Pellet Wood Stoves	0
Mobile Home Park	—
Wood Fireplaces	36
Gas Fireplaces	57
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	5
Non-Catalytic Wood Stoves	5
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
11356341.75	3,785,447	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	16,845,524	7.99	0.0000	0.0000	78,221,948
Condo/Townhouse	483,135	7.99	0.0000	0.0000	2,406,074
Mobile Home Park	488,882	7.99	0.0000	0.0000	2,454,929

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	96,370,025	586,827,480
Condo/Townhouse	4,110,570	0.00
Mobile Home Park	3,653,840	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	1,814	—

Condo/Townhouse	86.4	—
Mobile Home Park	76.9	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Mobile Home Park	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Mobile Home Park	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	23.3	annual days of extreme heat
Extreme Precipitation	6.25	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	30.9	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	N/A	N/A	N/A	N/A
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The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—

AQ-Ozone	78.2
AQ-PM	4.79
AQ-DPM	0.47
Drinking Water	62.6
Lead Risk Housing	48.8
Pesticides	0.00
Toxic Releases	10.9
Traffic	1.46
Effect Indicators	—
CleanUp Sites	71.6
Groundwater	22.1
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	12.5
Solid Waste	70.4
Sensitive Population	—
Asthma	17.9
Cardio-vascular	11.4
Low Birth Weights	67.2
Socioeconomic Factor Indicators	—
Education	36.9
Housing	0.08
Linguistic	0.00
Poverty	18.2
Unemployment	60.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	63.31322982
Employed	14.53868857
Median HI	78.01873476
Education	—
Bachelor's or higher	52.99627871
High school enrollment	100
Preschool enrollment	73.96381368
Transportation	—
Auto Access	98.98626973
Active commuting	8.943924034
Social	—
2-parent households	44.29616322
Voting	96.58668035
Neighborhood	—
Alcohol availability	78.86564866
Park access	59.74592583
Retail density	2.55357372
Supermarket access	2.399589375
Tree canopy	65.07121776
Housing	—
Homeownership	88.6179905
Housing habitability	96.50968818
Low-inc homeowner severe housing cost burden	92.04414218
Low-inc renter severe housing cost burden	99.08892596
Uncrowded housing	56.30694213

Health Outcomes	—
Insured adults	60.27203901
Arthritis	0.0
Asthma ER Admissions	42.2
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	34.5
Cognitively Disabled	21.0
Physically Disabled	42.3
Heart Attack ER Admissions	40.0
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	82.2
SLR Inundation Area	0.0

Children	47.4
Elderly	36.8
English Speaking	98.1
Foreign-born	2.7
Outdoor Workers	68.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	95.6
Traffic Density	0.7
Traffic Access	23.0
Other Indices	—
Hardship	35.2
Other Decision Support	—
2016 Voting	96.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	13.0
Healthy Places Index Score for Project Location (b)	64.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	Only CO2e intensity factor is available from the project, hence CH4 and N2O EF are zeroed out.
Construction: Construction Phases	No demolition required

Memorandum

Date: October 2, 2023
To: Meghan Kelly, County of San Diego
From: Katy Cole and Andrew Scher, Fehr & Peers
Subject: **County of San Diego In-Process General Plan Amendments VMT Assessment**

SD21-0394

This memorandum provides of the results of the transportation/Vehicle Miles Traveled (VMT) modeling completed for the County of San Diego in process General Plan Amendments. This memorandum summarizes the study scenarios, land use changes, travel demand model procedures, and vehicles miles traveled (VMT) calculations.

The SANDAG ABM 2+ model using land use data set ("DS") 39 for 2035 and 2050 was used to determine the VMT estimates for the General Plan Amendment scenario. This is consistent with the model version and procedures used for the Climate Action Plan (CAP) Supplemental Environmental Report (SEIR).

Scenarios

The following scenarios were modeled/analyzed:

- Project scenario – SANDAG Regional Plan EIR Alternative 2 land uses and transportation network.
- General Plan Amendment scenario – Project scenario cumulative land use totals and transportation network with the addition of new households associated with current General Plan Amendment projects.

Project Scenario

The SANDAG Regional Plan EIR Alternative 2 (Data Set 39) model version, land uses, and VMT results are used to represent the proposed Project for the CAP SEIR. The land use assumptions contained in Data Set 39 are consistent with historical growth patterns in the unincorporated County and reflect expected growth consistent with the General Plan for the county. Additionally, the transportation network and policy inputs consist of "transportation projects with



environmental clearance, that have full funding, are under construction, or are otherwise reasonably foreseeable based on current plans..." (SANDAG 2021 Regional Plan EIR, Chapter 6 Alternatives Analysis, Page 6-3).

Table 1 shows the housing totals and growth modeled within the county for the Project.

Table 1: DS 39 Unincorporated Land Use Totals by Model Year

Year	Total Households	Growth from Base Year
Base Year (2016)	180,543	-
2035	195,249	14,706
2050	199,250	18,707

Source: SANDAG, Fehr & Peers.

General Plan Amendment Scenario

This scenario adds households associated with current General Plan Amendment project to the Project scenario. The following changes were made to model land uses compared to the Project scenario:

- Residential growth for any given general plan amendment project was added to the MGRA(s) overlapping the project's estimated location/size.
- All growth was distributed proportionally based on land area of the MGRAs (uniformly increasing the density of the MGRAs) for projects overlapping more than one MGRA.
- Household characteristics (single family, multifamily, income, size, etc) were sampled based on household characteristics in similar MGRAs nearby.

This scenario assumes 2,964 additional households compared to the Project scenario. This includes 2,743 single family homes, 117 multi-family homes, and 104 mobile homes. These additional households were assumed for both 2035 and 2050.

Table 2 shows the list of General Plan Amendment projects considered and the households associated with each project.



Table 2: General Plan Amendment Project Land Use Totals


Year	Total Households
Ivanhoe Ranch	120
Warner Springs Ranch Resort	45
Peppertree Park	685
Passerelle-Campus Park	138
Abdali Gas Station	-
Labrador Lane	104
Rancho Librado	56
Castle Creek	63
Preserve at Riverbend	1,300
Harmony Grove Village South	453
Total:	2,964

Source: SANDAG, Fehr & Peers.

Methodology for Determining Total VMT

Fehr & Peers utilized the model outputs for the model scenarios evaluate changes in VMT for the unincorporated County. Total VMT and transportation metrics were evaluated for 2035 and 2050 conditions using the “CAP” method¹ as follows:

- Total VMT produced using the “CAP” method includes all internal VMT, ½ of internal to external VMT, and ½ of external to internal VMT. For example, all VMT originating from trips that start and end in the unincorporated area are included. One half of the VMT that originates in the unincorporated County but ends in one of the region’s cities is included AND one half of the VMT that originates in one of the cities but ends in the unincorporated area is included.

Total VMT Generated (CAP)	All vehicle-trips are traced to the zone or zones of study. This includes internal to internal (II), 1/2 internal to external (IX), and 1/2 external to internal (XI) trips. May use final assignment origin-destination (OD) trip tables or production (P) and attraction (A) estimates multiplied by distance skims. When the model has multiple assignment periods, OD trip tables and congested skims from each period should be used.	
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¹ “The “CAP” method for estimating total VMT is used throughout California and is the ICLEI (ICLEI-Local Governments for Sustainability) recommended methodology. In addition, it is documented in the SANDAG Regional Climate Action Planning Framework (ReCAP), December 2020, Appendix I, Pages 18-21.



In addition, adjustments were made to account for military and tribal land, which is not within the County's jurisdiction. The *Military and Tribal VMT Adjustment for the San Diego County CAP Model Scenarios* (Fehr & Peers, February 2023) describes the process for the adjustment.

Results

Table 3 shows base year CAP VMT as well as 2035 CAP VMT for the Project and General Plan Amendments scenario². **Table 4** shows 2016 CAP VMT as well as 2050 CAP VMT for the Project and the General Plan Amendments scenario.

Table 3: 2035 Total VMT

Alternative	Unincorporated County Total Weekday VMT ¹	Change from Project Alternative	Percent Change
Base Year (2016)	8,853,215	-	-
Project	9,635,081	0	0.0%
General Plan Amendments	9,715,536	80,455	0.84%

Notes: ¹ CAP VMT = II VMT + 1/2*IE VMT + 1/2*EI VMT

Source: SANDAG, Fehr & Peers.

Table 4: 2050 Total VMT

Alternative	Unincorporated County Total Weekday VMT ¹	Change from Project Alternative	Percent Change
2016	8,853,215	-	-
Project	10,216,009	0	0.0%
General Plan Amendments	10,293,826	77,817	0.76%

Notes: ¹ CAP VMT = II VMT + 1/2*IE VMT + 1/2*EI VMT

Source: SANDAG, Fehr & Peers.

The General Plan Amendments scenario results in a 0.84% increase in unincorporated County VMT for 2035 and a 0.76% increase in unincorporated County VMT for 2050. These changes appear very small; however, it is important to consider that in the base year (2016) the unincorporated County already generates approximately 8.8 million VMT. Only minor decreases in VMT associated with the existing population are expected due to the assumptions in the DS 39 version of the model. Therefore, Fehr & Peers expects the magnitude overall VMT reduction

² VMT results for the General Plan Amendments alternative were calibrated to be consistent with results published for the County's CAP GHG Inventory sourced from model results provided directly from SANDAG. Each model run performed produces varied results since travel demand modeling is a simulation; therefore, the calibration was made to allow for direct comparison to the County's CAP GHG Inventory.



between the Project and these two alternatives to be small since the vast majority of unincorporated County VMT under future year alternatives can be attributed to existing land uses.

Another way to understand the VMT outcomes of additional land use within the County is to evaluate the VMT associated with the land use growth. For example, assuming the VMT associated with existing residents is held constant at the 2016 base year levels, the change in VMT from 2016 base year levels for the Project and the General Plan Amendments scenario would represent the VMT associated with new development beyond base year. This is shown in **Table 6** and **Table 7** for 2035 and 2050 respectively.

Table 6: 2035 Change in VMT compared to Project Growth in VMT

Alternative	County Total VMT ¹	Change in VMT from Base Year	Percent of Project Growth in VMT	Change in VMT Growth
Base Year (2016)	8,853,215	-	-	-
Project	9,635,081	781,866	100.0%	0.0%
General Plan Amendments	9,715,536	862,321	110.3%	10.3%

Notes: ¹ CAP VMT = II VMT + 1/2*IE VMT + 1/2*EI VMT

Source: SANDAG, Fehr & Peers.

Table 6: 2050 Change in VMT compared to Project Growth in VMT

Alternative	County Total VMT ¹	Change in VMT from Base Year	Percent of Project Growth in VMT	Change in VMT Growth
Base Year (2016)	8,853,215	-	-	-
Project	10,216,009	1,362,794	100.0%	0.0%
General Plan Amendments	10,293,826	1,440,611	105.7%	5.7%

Notes: ¹ CAP VMT = II VMT + 1/2*IE VMT + 1/2*EI VMT

Source: SANDAG, Fehr & Peers.

Focusing on the growth in VMT since 2016, growth in VMT due to General Plan Amendment projects is 10.3% higher than the Project for 2035 and 5.7% higher for 2050. VMT is not reduced because the General Plan Amendments as modeled (including only additional households in the model) do not provide closer retail, schools, and other destinations for existing households, therefore having a limited effect on reducing commute distances and other trip distances for existing residents.

Note that no employment changes associated with the General Plan Amendment projects assumed in the modeling. Many of the General Plan Amendment projects have limited information on non-residential uses and the residential component is the major component of most of the projects. The modeling therefore reflects the highest VMT outcomes since it does not capture the typical benefits associated with mixed-use developments and neighborhood serving



retail and focuses only on growth in housing units. Denser development would likely catalyze growth in employment and mixed-use development and would result in greater VMT benefits than shown.

Additional reductions in VMT could also occur if transportation network changes were made compared to the Project model scenario to encourage transit and active transportation.